REMARKS

Status of the Claims

Claims 1-56 are pending in the application. Claims 2-3, 13-14 and 17-56 are withdrawn as being drawn to a nonelected invention. Claims 1, 7 and 8 are amended herein and claims 5 and 6 are canceled. Claims 1, 4, 7-12 and 15-16 are under examination.

35 U.S.C § 112, first paragraph

Claims 1, 4-12 and 15-16 stand rejected by the Examiner under 35 U.S.C. § 112, first paragraph as containing subject matter which was not adequately described. Applicants respectfully traverse this rejection.

The Examiner's rejection is directed to an alleged lack of description of the term "binding partner precursor," and in particular the lack of description of the structure of the precursor. The Applicants assert that the term binding partner precursor is adequately described and that a structural description is neither required nor possible in this case.

In our previous response, Applicants explained that independent claim 1 is directed to a method of identifying a binding partner or binding partner precursor. Applicants emphasized that claim 1 is directed to a *method of identifying* the binding partner and not to a composition comprising the binding partner or it's precursor. The identification of the binding partner or it's precursor is a result of practicing the method of the claimed invention.

Accordingly, the binding partner itself is not a limitation of the claim and as such paragraph 1 of 35 U.S.C. § 112 does not require a structural description of the binding partner which is to be identified. The Examiner has responded to Applicants arguments by citing ex parte Pfeiffer, 782 O.G. 639, 135 USPQ 31 (1961) "to be entitled to such weight in a method claim, the recited structural limitations therein must affect the method in a manipulative sense and not amount to

the mere claiming of a use of a particular structure." A proper reading of Pfeiffer is that <u>if</u> there are structural limitations in a method claim, then in order to have weight, they must affect the method in a manipulative sense. Pfeiffer does not suggest or state that structural limitations are required as a general matter in method claims.

There are a number of examples of methods involving binding of proteins where a detailed structural description of the binding partners is not given. For example U.S. Patent 4,376,110 directed to a "sandwich" immunometric assay for ligands in fluids. The claims of this patent do not restrict the structure of the binding sites of the monoclonal antibodies used in the method. The method claimed is generally applicable to use with antibodies with any specificity. Another example is U.S. Patent 6,287,785 directed to a homogeneous immunoassay process using multiple antibodies. Again, the claims do not limit the structure of the binding site of the antibody directed to the ligand of interest, the antibody may have any specificity that is useful for the particular embodiment.

In the present application, since the method claimed is directed to <u>identifying</u> the binding partner and the method is applicable to identifying a broad range of potential binding partners the Applicants can hardly be required to provide a structural description of a substance that is not yet identified. In view of these arguments the Applicants respectfully request reconsideration and withdrawal of the rejection.

35 U.S.C. 102(b)

Claims 1, 4-5, 9-12 and 15-16 stand rejected under 35 U.S.C. § 102 as being anticipated by Ivanenkov et al. (J. Biological Chemistry, 6/16/1995) and Kraft et al. (The Journal of Biological Chemistry, January 22, 1999).

As amended herein, claim 1 now contains the element from claim 6 requiring the size of the amino acid sequence to be "of from about 20 to about 40 amino acids in length." The amino acid sequences used in Ivanenkov are 15 amino acids in length (see legend to Table 1, page 14653 of Ivanenkov). Kraft uses amino acid sequences of 7 or 12 amino acids in length (see Table 1 of Kraft). In view of this amendment, claim 1 and claims 4, 9-12 and 15-16 which depend from claim 1 are not anticipated by Ivanenkov or Kraft and Applicants request withdrawal of the rejection.

35 U.S.C. § 103(a)

Claims 1, 4-12 and 15-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ivanenkov in view of Kay et al. (U.S. 6,303,574). Applicants respectfully traverse this rejection.

In responding to Applicants previous arguments, the Examiner asserts that even without Kay, the abstract of Ivanenkov at least suggests the use of longer length sequences of 44 amino acids to identify the motif of 8 amino acids. Applicants point out that the abstract of Ivanenkov states "Alignment of the sequence of 44 unique S-100b binding peptides" (emphasis added). There is no disclosure in Ivanenkov teaching or suggesting the use of sequences of 44 amino acids in length to identify a common motif.

Applicants reiterate the argument that in order to establish a *prima facia* case of obviousness there must be a motivation to combine the references, *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Kay is cited by the Examiner as teaching the use of a random sequence of 9-45 amino acid residues encompassing a consensus sequence in order to improve the binding "selectivity's or specificities." Ivanenkov reports in Table 1 that 80% of the unique sequences had a common motif of 8 amino acids, there is no disclosure that additional amino acids are needed. Therefore one of ordinary skill in the art would have no motivation to combine

Ivanenkov with Kay to use a longer length random peptide, such as Applicants peptides of 20 to 40 amino acids, "in order to locate and fingerprint the motif with 'high specificity and selectivity."

In view of these arguments the applicants respectfully request reconsideration and withdrawal of the rejection.

CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application. In the alternative, Applicants request that the amendments be entered in the record as they place the application in better condition for appeal.

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AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. <u>13-4500</u>, Order No. <u>2598-4004US1</u>. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. <u>13-4500</u>, Order No. <u>2598-4004US1</u>. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted, MORGAN & FINNEGAN, L.L.P.

Dated: March 13, 2006

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